



## **Effects of time gravity changes on the Earth nutations**

Jose Manuel Ferrandiz, Pedro A. Martinez-Ortiz, and David Garcia

University of Alicante, Space Geodesy Laboratory, Applied Mathematics, Alicante, Spain (jm.ferrandiz@ua.es, +34965909707)

In this report we present a first estimation of the main effects of the observed time varying gravity on the nutations. We follow the Hamiltonian method used in the theory of non-rigid Earth started by Getino and Ferrándiz, considering a two-layers Earth model and deriving a solution by canonical perturbations methods.